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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,150	04/18/2000	Patrick Vandenameele	IMEC167.001AUS	3374
20995	7590	11/18/2004	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			WILLIAMS, LAWRENCE B	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			2634	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/552,150

Applicant(s)

VANDENAMEELE, PATRICK

Examiner

Lawrence B Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 02 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7,9-31 and 33-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,6,7,9-31 and 33-46 is/are allowed.
- 6) ☒ Claim(s) 47-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains form and legal phraseology. Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" and "**said**," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

1. Claims 47-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Raleigh et al. (US Patent 6, 452,981 B1).

(1) With regard to claim 47, Raleigh et al. discloses in Figs. 9-14, a communication method comprising: receiving a plurality ($z(1,1) - z(N,M)$) of data signals at a base station; generating two combined data signals (summers) based on said plurality of data signals, wherein the combined data signals are adapted for facilitating estimation of one of the plurality of data signals at each of receiving terminals; and transmitting from each of the two transmitters one of the two combined data signals (col. 13, line 21-col. 14, line 29).

(2) With regard to claim 48, Raleigh et al. also discloses wherein said combined data signals form a composite data signal at each of said plurality of receiving terminals (col. 17, lines 34-42).

(3) With regard to claim 49, Raleigh et al. also discloses receiving at each of said plurality of receiving terminals one of said composite data signals; and determining at each of said receiving terminals an estimate of the data signal intended for the respective receiving terminal from the composite signal (col. 28, lines 15-44).

(4) With regard to claim 50, Raleigh et al. also discloses in Figs. 9-14, a method of transmitting data signals from a terminal to a base station comprising; receiving at a base station on two spatially diverse receiving means (111) respective representations of said data signal, wherein the representations of said data signal received on the two receiving means are each a function of the data signal subband processing the data signal, subsequent to subband processing the data signal, estimating the data signal based on at least partly on the differences between the representations of the data signal received on the two receiving means due to the different transmission paths taken by each of the data signals (col. 14, line 30- col. 15, line 6).

(5) With regard to claim 51, Raleigh et al. also discloses wherein estimating the data signal is based at least partly on an interference ratio of the representation of the data signal (col. 28, lines 35-44).

(6) With regard to claim 52, Raleigh et al. also discloses in Fig. 10, wherein the data signal is inverse subband processed (205, IFFT) before being transmitted

Allowable Subject Matter

2. Claims 1, 2, 6, 7, 9-31, 33-46 are allowed.

3. The following is a statement of reasons for the indication of allowable subject matter:

The instant application discloses a method of transmitting data signals from at least two transmitting terminals. Prior art fails to teach a method comprising “determining estimates of the respective data signals, on a subband by subband basis, from the subband processed received data signals in the receiving terminal, wherein said determining includes, for at least one data signal: selecting from the data signals a selected data signal; determining an estimate of the selected data signal from the subband processed received data signals; modifying the subband processed received data signals based on the estimate of the selected data signal; and determining estimates of the remaining data signals from the modified subband processed received data signals”.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
October 27, 2004


AMANDA T. LE
PRIMARY EXAMINER